

## TWO NEW SPECIES OF CALLISTEMON R.Br. (MYRTACEAE)

by

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### ABSTRACT

Lumley, P. F. and Spencer, R. D. Two new species of *Callistemon* R.Br. (Myrtaceae). *Muelleria* 7(2): 253-257—The new species, *Callistemon pungens* from New South Wales and *Callistemon recurvus*, from North Queensland are described and illustrated and notes on their distribution, habitat and diagnostic characters are given.

### TAXONOMY

*Callistemon pungens* P. F. Lumley et R. D. Spencer, *sp. nov.*

*Frutex* vel arbor parva 2-5 m alta. *Ramuli* rigidi. *Surculi juvenes* primo purpurei viridescentes sericei. *Cortex* leviter decorticans, murinus. *Folia* petiolo torto 1-2 mm longo, rigida anguste elliptica vel oblanceolata, 20-30 mm longa, 3.5-5 mm lata, contracta in apicum acuminatum mucrone pungente 1-2 mm longo, costa et venis intramarginalibus leviter prominentibus, glandulis multis, parvis. *Conflorescentia* non frondosa, (40-)50-60(-80) mm longa, 35-45 mm lata, axe pubescenti. *Bracteae* caducae, anguste vel late lanceolatae, striatae, ferrugineae. *Bracteolae* non visae. *Perigynium* 3 mm longum, 2.5 mm latum, pubescens. *Sepala* 5, semicircularia 2 mm lata, membranacea, pubescentia. *Petala* 5, perlate spatulata, 3 mm longa, 3 mm lata, supra glabrata, viridia. *Stamina* libra c. 30, 12-14 mm longa, purpurea, antheris c. 0.8 mm longis, purpureis. *Ovarium* triloculare, supra tomentosum. *Stylus* plerumque stamina superans, purpurea. *Fructi* persistentes truncato-globosi, post annum primum c. 4-5 mm longi, 5-7 mm lati. *Semen* angulare c. 1 mm longum.

TYPUS: New South Wales, Northern Tablelands, c. 0.3 km along road to Armidale from junction with road from the Armidale/Dorrigo Road to Hillgrove, (c. 4 km from Highway). 30° 33'S, 151° 54'E, 21.xi.1983, P. F. Lumley 1150 (HOLOTYPUS: MEL 650211. ISOTYPI: NE, NSW, CANB).

*Shrub* or small *tree* 2-5 m tall with rigid branches; new growth sericeous, purple at first, becoming green. *Bark* gradually peeling, grey-brown. *Leaves* 20-30 mm long, 3.5-5 mm wide with a twisted petiole 1-2 mm long; glands many, small; apex acuminate with a pungent mucro 1-2 mm long; midrib and intramarginal veins prominent. *Conflorescence* not frondose, (40-)50-60(-80) mm long, 35-45 mm wide with a pubescent axis. *Bracts* caducous, narrowly to broadly lanceolate, striate, ferruginous. *Bracteoles* not seen. *Perigynium* 3 mm long, 2.5 mm wide, pubescent. *Sepals* 5, semicircular, 2 mm wide, membranous, pubescent. *Petals* 5, broadly spatulate, 3 mm long, 3 mm wide, glabrous above, green. *Stamens* about 30, free, 12-14 mm long, purple; anthers c. 0.8 mm long, purple. *Ovary* trilocular, tomentose above; style usually exceeding stamens, purple. *Fruit* persistent, truncate-globose, 4-5 mm long, 5-7 mm wide after 1 year. *Seed* angular c. 1 mm long. (Fig. 1)

### DISTRIBUTION:

New South Wales, Northern Tablelands, Howell; Southern Queensland, Stanthorpe region, near Hillgrove.

### ECOLOGY:

In sandy creek beds on granite. Conservation status: although abundant in its few remaining localities, *C. pungens* should be regarded as vulnerable.

### REPRESENTATIVE SPECIMENS (total number examined 6):

*New South Wales*—*Northern Tablelands*: Howell, 1 km along track by side of sandy creek, 22.xi.1983, P. F. Lumley 1156 (MEL 650074).

*Queensland*—*Darling Downs*: Severn River, north east of Ballandean where road from Ballandean crosses it, 18.xi.1983, P. F. Lumley 1113 (MEL 650197).

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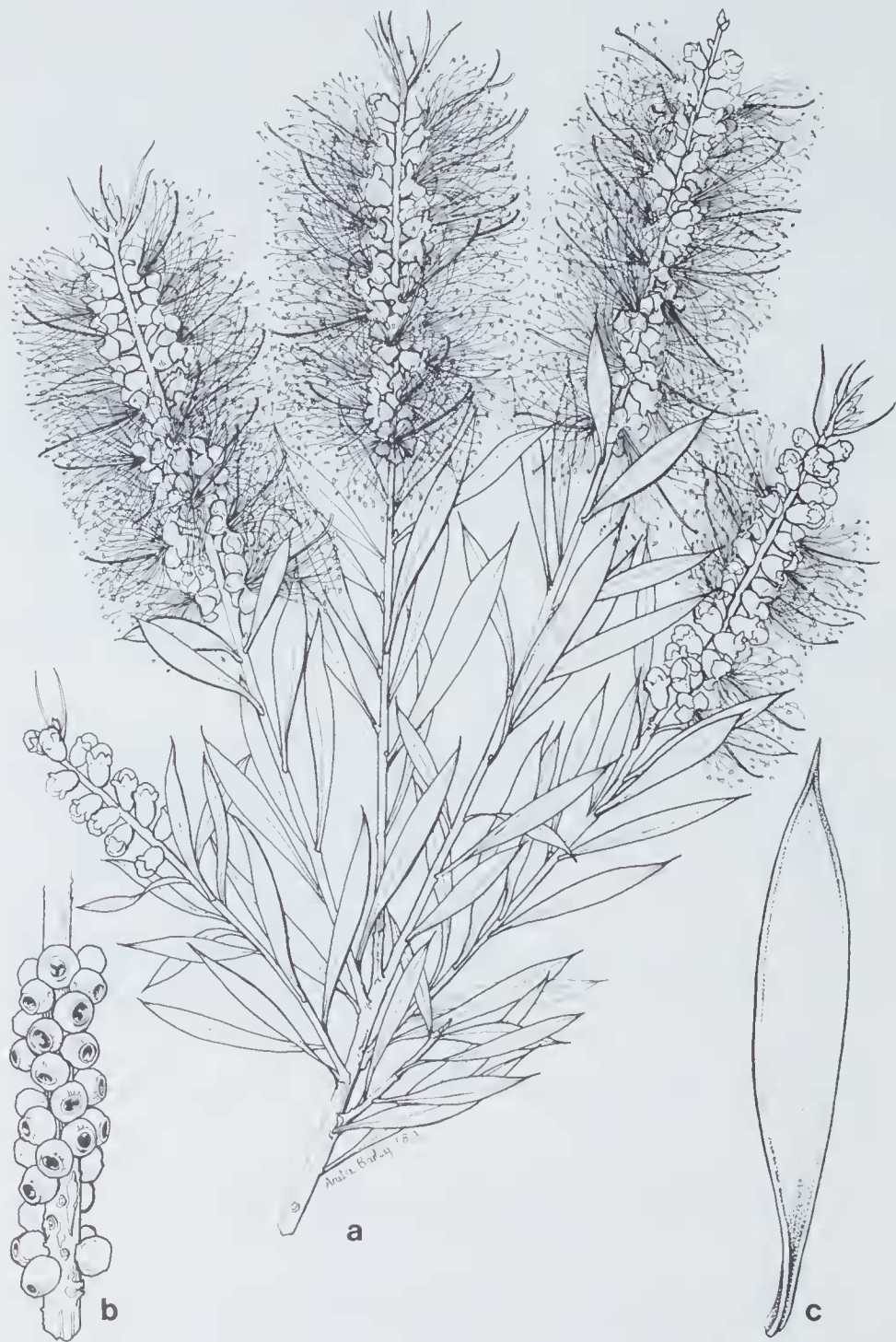


Fig. 1. *Callistemon pungens*. a—flowering twig,  $\times 1$ . b—fruits,  $\times 1$ . c—leaf,  $\times 3$ . All drawn from Holotype.

## NOTES:

A very distinctive species characterised by its purple stamens and small, pungent leaves. It appears to have affinities with *C. citrinus* (Curtis) Skeels.

Plants in the horticultural trade as *C. 'Lana'* apparently originated from a single remaining tree of this species on the 'Lana' property west of Uralla. A plant at the RBG Melbourne was received as *C. 'Gilesii'*.

The natural habitat of this species is largely occupied by naturalised species.

**Callistemon recurvus** R. D. Spencer *et* P. F. Lumley, *sp. nov.*

*Callistemon* species (Tinaroo). W. R. Elliot & D. L. Jones, *Encycl. Austral. Pl.* 2: 425, plate p. 425 (1982).

*Callistemon* sp., Tinaroo Bottlebrush. K. A. W. Williams, *Native Pl. Queensland*, ed. 3, 1: 48, plate p. 49 (1984).

*Frutex* vel *arbor* parva interdum usque ad c. 7 m alta. *Ramuli* interdum pendentes. *Surculi juvenes* rosei viridescentes sericei. *Cortex* in trunco leviter fissuratus, alibi papyraceus cinereus. *Folia* forma et amplitudine variabilia, sessilia vel petiolo usque ad 1 mm longo, anguste oblanceolata, flexibilia et sat tenua, (1-)2-4(-5) cm longa, (2-)3-5(-8) mm lata, pungente mucrone 0.5-1 mm longo; venis prominentibus, venis intramarginalibus relative inconspicuis; margine undulato recurvo; glandulis multis et parvis infra et supra. *Conflorescentia* 3-5(-8) cm longa, (3-)3.5(-4) cm lata; axe pubescens. *Bractaeae* caducae, anguste vel late lanceolatae, striatae, ferrugineae. *Bracteolae* lanceolatae, jam caducae, plus minusve glabra infra. *Perigynium* c. 3 mm latum, glabratum. *Sepala* 5, c. 1 mm longa, 1.5 mm lata. *Petala* 5, concava, c. 3-4 mm longa, viridia saepe suffusa rosea, marginis ciliatis. *Stamina* libera; filamenta c. 12-15 mm longa, coccinea. *Antherae* aureae c. 0.5 mm longae. *Ovarium* triloculare, tomentosum supra. *Stylus* coccineus, maximam partem aequans stamina. *Stigma* capitatum. *Fructi* globosi vel urceolati c. 4-5 mm longa, 3-5 mm lata, non persistens, orificio constricto. *Semen* angulare, atrobrunneus.

TYPUS: Queensland, Cook. Mt Stewart east of Herberton. On granite, 17° 2-'S, 145° 3-'E, v.1977, *R. Russel s.n.* (HOLOTYPUS: BRI 221832).

*Shrub* to small narrow *tree* to c. 7 m tall but generally much less, with ascending branches; branchlets sometimes pendulous; new growth sericeous, red, soon becoming green. *Bark* fissured on main trunk, pale grey and slightly papery elsewhere. *Leaves* variable in size and shape, even on the same plant, densely distributed, sessile or with short petiole c. 1 mm long; lamina flexible, relatively thin, narrowly oblanceolate, (1-)2-4(-5) cm long, (2-)3-5(-8) mm wide, pungent with a mucro 0.5-1 mm long; midrib and lateral veins distinct on both surfaces but intramarginal veins not evident; margins often slightly recurved and undulate, most marked on dried specimens; small oil glands on both surfaces. *Conflorescence* 3-5(-8) cm long, (3-)3.5(-4) cm wide; axis finely pubescent at first. *Bracts* narrow to broad-lanceolate, striate, reddish brown, often darker at the tip, chartaceous, caducous. *Bracteoles* when present, broadly lanceolate, more or less glabrous on outside, caducous. *Perigynium* c. 3 mm wide, glabrate. *Sepals* 5, semi-persistent, c. 1 mm long, 1.5 mm wide, hairy on the outside, greenish to crimson. *Petals* 5, concave, narrowed at the base, c. 3-4 mm long, 3 mm wide, glabrous, green tinged red; margin ciliate. *Stamens* c. 12-15 mm long; filaments free, slender, crimson; anthers yellow, c. 0.5 mm long. *Ovary* trilocular, tomentose on upper surface at first; style generally equal to or a little longer than the stamens and crimson; stigma capitate. *Fruit* globose to urceolate, 3-5 mm wide, 4-5 mm long, orifice generally constricted, rarely persisting for many years. *Seed* dark brown, angular. (Fig. 2)

## DISTRIBUTION:

North Queensland (Cook and North Kennedy Districts). Ranges of the Atherton Tableland.

## ECOLOGY:

On rocky montane slopes and gullies where it is often found as an undershrub in open forest in granitic soils along moist soaks. Flowering time: irregular, mostly Aug.-Oct. Conservation status: not under threat.

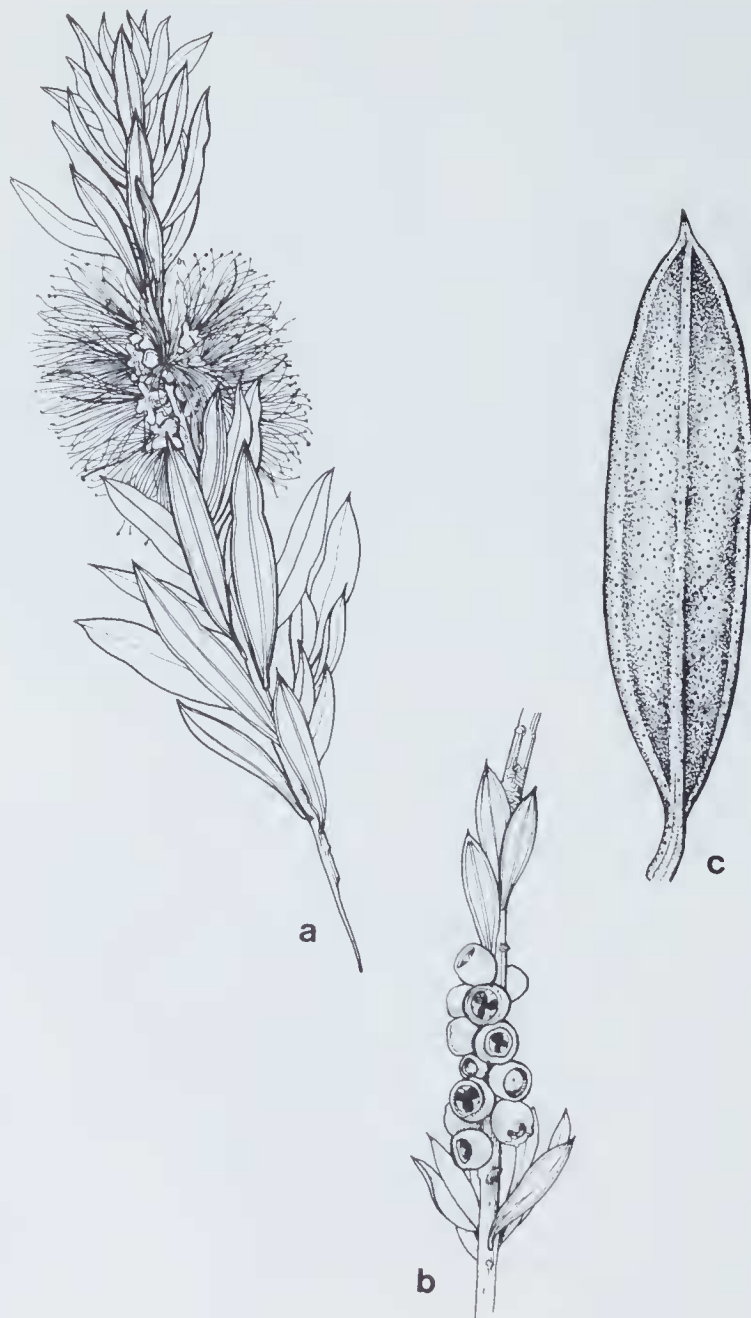


Fig. 2. *Callistemon recurvus*. a—flowering twig,  $\times 1$ . b—fruits,  $\times 1$ . c—leaf, under surface,  $\times 4$ . All drawn from Holotype.

REPRESENTATIVE SPECIMENS (total number examined c. 10):

Queensland—North Kennedy District: Tully Falls, 14.viii.1957, B. Hyland s.n. (BRI 38745); Cook District: Between Tinaroo Falls and Danbulla . . ., 21.viii.1963, S. T. Blake 22096 (BRI 163056); North Kennedy District: State Forest Reserve 194—Walsh Falls 27.ix.1967, B. Hyland 3962 (BRI 131822).

## NOTES:

A distinctive, though variable, species recognised by its densely-distributed oblanceolate leaves, often with recurved and slightly undulate margins: they are often orientated horizontally on the plant. A variant with generally narrower leaves and smaller fruits is found in the northern area of its distribution range on Mt Mulligan (Dupl. J. R. Clarkson 5294, 12.iv.1984, MEL 665390 also QRS, MO, CANB, K, NSW, PERTH, DNA).

Williams (1982) reported that seeds of this species had been collected, propagated and distributed and that the plant was well established in cultivation, having the advantage of often producing more than one flush of flowers in the year. Elliot & Jones (1982) refer to its availability in horticulture as the cultivars 'Tinaroo Dazzler' and 'Tinaroo Falls'.

## ACKNOWLEDGEMENTS

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## REFERENCES

- Elliot, W. R. & Jones, D. (1982) 'Encyclopaedia of Australian plants', vol. 2 (Lothian: Melbourne).  
 Williams, K. A. W. (1984) 'Native Plants of Queensland', ed. 3, vol. 1 (K. A. W. Williams: N. Ipswich.)

